



First Public Meeting for Lower Clinch River and Tributaries

Bark Camp Branch, Bear Creek, Fall Creek, Laurel Creek, Little Stony Creek, Russell Creek, Stony Creek, Staunton Creek, Thompson Creek, Blackwater Creek, Cove Creek, Stock Creek, Copper Creek, Moll Creek, Valley Creek, North Fork Clinch River

TMDL Development





Overview of TMDL Process

Department of Environmental Quality

1. Conducts water quality sampling
2. Assesses the data by comparing it to water quality standards
3. Problem (**Impaired**) waters are listed in an EPA report called the 303(d) Total Maximum Daily Load (**TMDL**) List

TMDLs are required by State and Federal Law

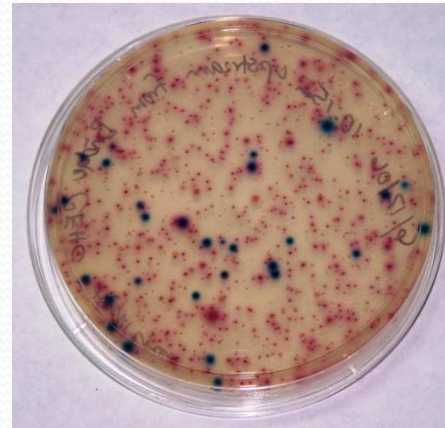


TMDLs are Required by Law

- Federal 1972 Clean Water Act requires:
 - Water Quality Monitoring
 - Periodic Assessment and Impaired Waters Listing
 - Develop TMDLs for Impaired Waters
- Virginia's 1997 Water Quality Monitoring Information and Restoration Act (WQMIRA) requires
 - TMDLs for Impaired Waters
 - An Implementation Plan

What are Water Quality Standards?

- **Numeric or Narrative Limits** designed to protect designated uses
 - Recreational use: measured by the number of colony forming units of bacteria in the water
 - Aquatic life use: measured by the numbers and varieties of aquatic organisms that live in our streams



Designated Uses

Virginia's designated uses include:

Wildlife

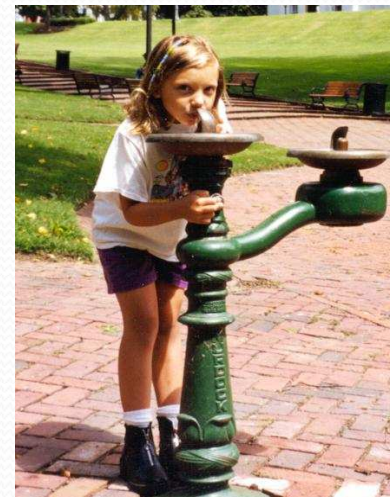
Aquatic Life

Recreation

Fish Consumption

Shellfish

Public Water Supply



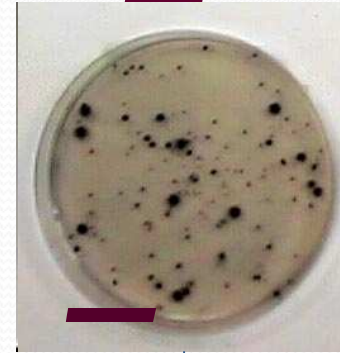
Lower Clinch River and Tributaries

Why Are We Here?

**Not Supporting
Recreational Use**

Bacteria Standard
(9 VAC 25-260-170)
E. Coli no more than 235
bacteria per 100 ml

***Approximately 96.09
impaired stream miles***



Lower Clinch River and Tributaries

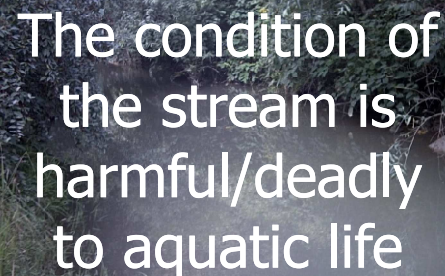
Why Are We Here?



Bark Camp Branch -3.01 miles
Laurel Creek -3.39 miles
Thompson Creek - 3.31 miles

**Not Supporting
Aquatic Life Use**

General Standard
(Benthic) (1998)
(9 VAC 25-260-20)



The condition of
the stream is
harmful/deadly
to aquatic life

“All state waters shall be
free from
substances...which are
harmful to human,
animal, plant, or aquatic
life.”

Lower Clinch River and Tributaries

Why Are We Here?

**Not Supporting
Aquatic Life Use**

pH Standard
(9 VAC 25-260-40)
pH of Class IV
(mountainous zone)
waters shall 6.0 – 9.0



The pH of the
stream is
harmful to
aquatic life

What is a TMDL or Total Maximum Daily Load?

- Amount of a pollutant that a waterbody can receive and still meet water quality standards
- It is pollutant Specific
 - Bacteria
 - Benthic
 - pH
- A special study that:
 - Identifies all significant pollutant sources
 - Calculates the amount of pollution from each source
 - Calculates pollution reductions, by source, needed to attain water quality standards

What Are The Steps In The TMDL Process?

1. Public notice for TMDL development
 2. TMDL Study with Public Meeting - Monitoring and Modeling the Watershed
 3. Public notice for Draft TMDL
 1. Public Meeting with 30-day comment period
 4. Submit to EPA for approval
 5. State Water Control Board adoption of TMDL
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6. TMDL Implementation Plan
 7. Implementation of Corrective Actions Prescribed by Implementation Plan
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8. Further Monitoring to Measure Success



For More Information

TMDLs in Virginia

<http://www.deq.virginia.gov/Programs/Water/WaterQualityInformationTMDLs.aspx>

EPA Region 3 TMDL Info

<http://www.epa.gov/reg3wapd/tmdl/>



Thank You

The 30 day public comment period for this meeting
closes on August 12, 2013.

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